

535  
GAS FIREPLACE HEATER  
INSTALLATION BOOKLET



**WARNING:** If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

**-WHAT TO DO IF YOU SMELL GAS**

- Do not try to light any appliance.
- Do not touch any electrical switch: do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

This appliance is a domestic room heating appliance. It must not be used for any other purpose such as drying clothes etc.

This appliance is suitable for installation in a bedroom or bed sitting room.

Manufactured by  
**MILES INDUSTRIES LTD.**  
British Columbia, Canada

Vous pouvez vous procurer un exemplaire en langue Française de cette brochure chez votre marchand.



- Safety Information
- Options
- Location
- Supply Gas
- Pack Contents
- Appliance Preparation
- Installations with different Models
- Installing to Wall
- Installations through the roof
- Installing to Frame & Fitting Heating Unit
- Fitting Sides and Switch
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## 1. SAFETY INFORMATION

**WARNING: Do not operate the appliance with the glass front removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person.**

(The whole window unit may be temporarily removed by the owner for cleaning the interior of the firebox, etc.)

Only the authorized Valor replacement window unit listed in the repair parts booklet must be fitted - never use substitutes.

If the glass is damaged, search inside and adjacent to the appliance for any glass fragments.

Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the appliance.

Clothing or other flammable material should not be placed on or near the appliance.

This appliance must be installed and repaired by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways of the appliance are kept clean.

Keep curtains, clothing, furniture and other flammable materials a safe distance from all parts of the appliance and its vent system.

Keep the appliance area well clear and free from combustible materials, gasoline and other flammable vapors and liquids.

Never attempt to burn paper or any other material in the appliance.

The venting terminal must not be recessed into a wall or siding.

The vent terminal on the outside wall must be kept free from obstructions. No objects should be placed within 2 feet (60cm) of the vent terminal. The terminal is hot during operation and requires a guard if it is accessible to any person. An approved Valor guard is available from your dealer.

During extreme weather conditions ensure that the vent outlet is free from ice and snow before attempting to light.

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

### NOTE

When operating your new fireplace for the first time, some vapors may be released due to the burning of curing compounds used in the manufacture of the appliance. They may cause a slight odor and could cause the flames to be the full height of the fire box, or even slightly higher, for the first few hours of operation. It is also possible that these vapors could set off any smoke detection alarms in the immediate vicinity. These vapors are quite normal on new appliances and are totally harmless but you may wish to open windows into the room to reduce the vapor/odor build up. After a few hours use the vapors will have disappeared and the flames will be at their normal height.

During the first hour of use, the ceramic firebox walls may go a smoky color. This is not soot. It is a temporary effect lasting only while the ceramic material becomes stabilized. The walls will revert to their initial color after your fire has been used for one or two hours.

## 2. OPTIONS

Heater engine unit #535EAN is used with all natural gas installations.

Heater engine unit #535EAP is used with all propane installations.

### 2.1. Appliance styles

Standard metal front. Black – **Kit #601SFB**

Cast iron front. Black – **Kit #602CFB.**

*One of the above kits must be used with each installation.*

### 2.2. Optional outer trims

3 sided Black – **Kit #603FSK**

3 sided Champagne – **Kit# 604FSK**

4 sided Black – **Kit #605FSK**

4 sided Champagne – **Kit# 606FSK**

### 2.3. Additional optional features

**Remote control unit** Hand operated control for flame & heat adjustment. It may be fitted before the fireplace is installed or retrofitted at a later date - **Kit #553RCK.**

**Circulating fan** Having variable speed and temperature control, it is designed to boost the natural convection process through the appliance. It may be fitted before the fireplace is installed or retrofitted at a later date – **Kit #555CFK.**

**Wall switch extension** Optional 10ft. long wire kit that enables the switch to be sited on a wall further away from the appliance than the standard switch. The standard switch has 4ft. of wire. **Kit #609WEK**

**Natural Gas Conversion kit** For conversion from propane to natural gas – **Kit #608NGK.** Intended primarily for post installation conversion in areas where natural gas was not available at the time of initial installation.

### 2.4.

### Venting options

#### 2.4.1. Direct vent installations

One or more of the accessories listed below must be used for each installation. See the “Location” section of this manual.

#### Kit#

**551DVK** Valor horizontal terminal kit provides up to 26” (66cm) horizontal run. Complete with wall plates and clearance shield approved for a maximum 14” (36cm) combustible wall.

**817VAK 984** Adapter for Dura-vent pipes Dura-vent DV GS horizontal square terminal cap

**942** Dura-vent DV GS wall thimble kit

**945B** 45° Dura-vent DV GS elbow

**990B** 90° Dura-vent DV GS elbow

**908B** 6” Dura-vent DV GS pipe length

**907B** 9” Dura-vent DV GS pipe length

**906B** 12” Dura-vent DV GS pipe length

**904B** 24” Dura-vent DV GS pipe length

**903B** 36” Dura-vent DV GS pipe length

**902B** 48” Dura-vent DV GS pipe length

**911B** Adjustable 11”-14<sup>5/8</sup>” Dura-vent DV GS pipe length

**981** Dura-vent DV GS snorkel termination unit – 36” rise

**982** Dura-vent DV GS snorkel termination unit – 14” rise

**991** Dura-vent DV GS high wind vertical termination cap

**940** Dura-vent DV GS round ceiling support  
**941** Dura-vent DV GS cathedral ceiling support box

**963** Dura-vent DV GS ceiling firestop

**943** Dura-vent DV GS adjustable roof flashing. Roof pitch 0/12 – 6/12

**943S** Dura-vent DV GS steep roof flashing. Roof pitch 7/12 – 12/12

**953** Dura-vent DV GS storm collar

**988** Dura-vent DV GS wall strap

**835TG** Terminal Guard

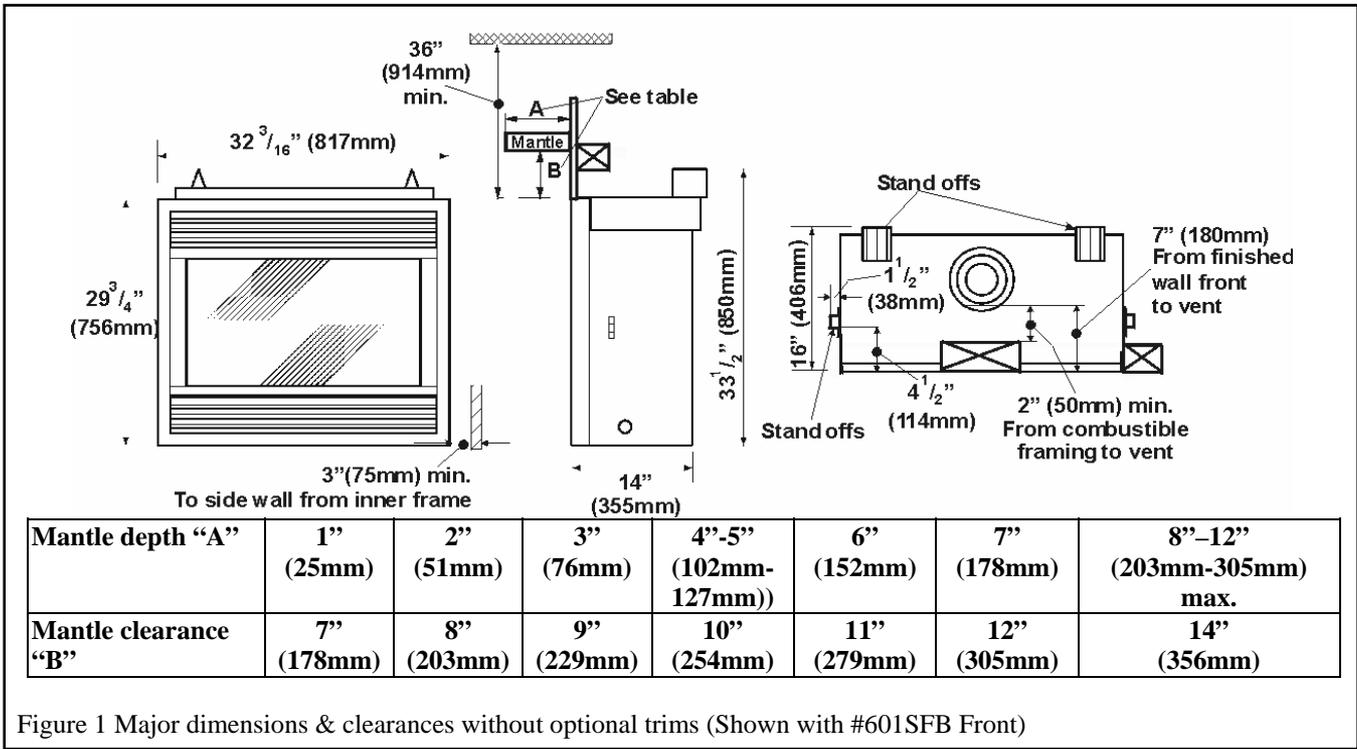


Figure 1 Major dimensions & clearances without optional trims (Shown with #601SFB Front)

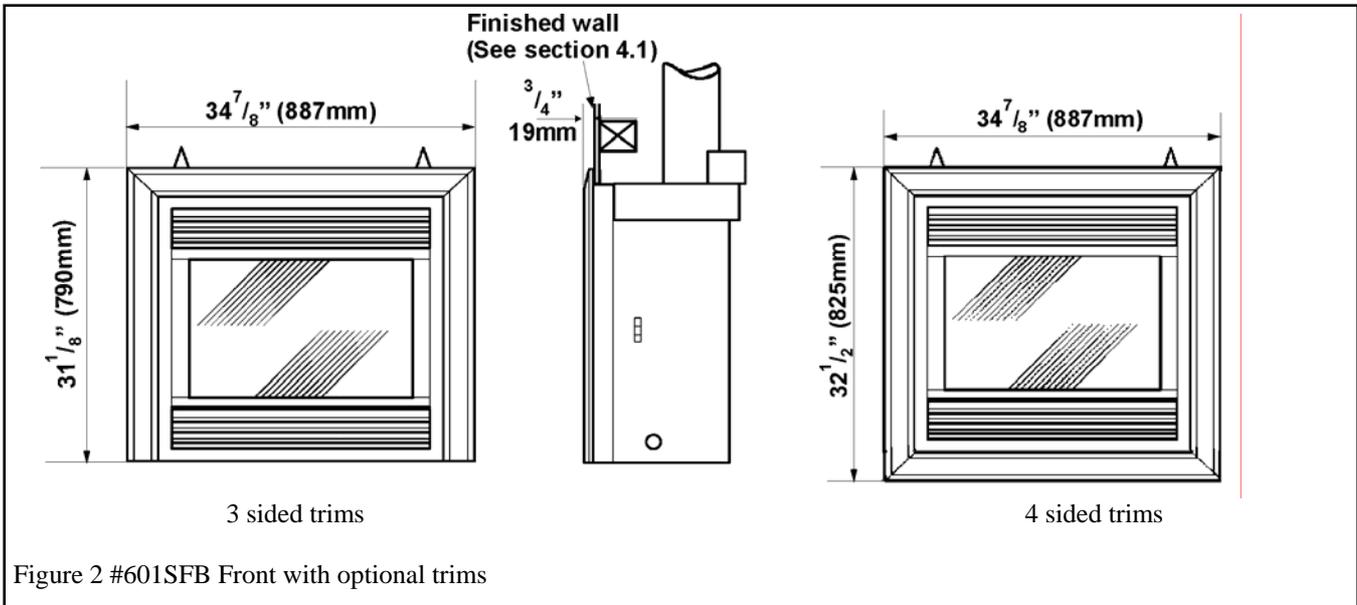


Figure 2 #601SFB Front with optional trims

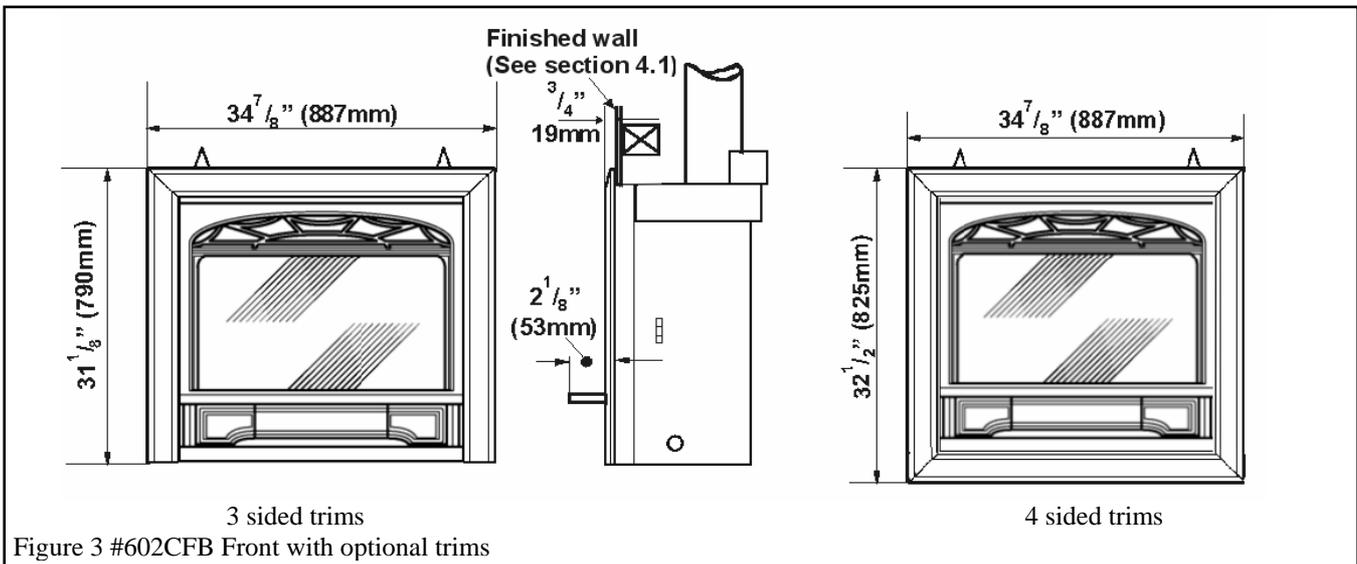


Figure 3 #602CFB Front with optional trims

## 3. GENERAL

### 3.1. Approvals & codes

These appliances are certified by C.S.A. for use in Canada and the USA. These appliances are for installation directly venting through an outside wall or through the roof.

Model 535AN is for use with natural gas.

Model 535AP is for use with propane. It can be converted for use with natural gas with kit #608NGK.

These appliances comply with *CGA P.4.1, Testing method for measuring annual fireplace efficiencies.*

The installation must conform with local codes or, in the absence of local codes with the *National Fuel Gas Code, ANSI Z223.1* or the *Canadian installation code CAN/CGA-149*. Only qualified licensed or trained personnel should install these appliances.

These appliances, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70* or the *Canadian Electrical Code, CSA C22.1*.

### 3.2. Ratings

Model	535AN	535AP
Gas	Natural	Propane
Altitude (Ft)	0-4500 <sup>1</sup>	
Input Max. (Btu/h)	30,000	28,000
Input Min (Btu/h)	6,500	14,500
Manifold pressure (in.w.c.)	3.5-3.9	10.3-10.7
Min. Supply pressure (in. w.c.)	5.0	11.0
Max. Supply pressure (in. w.c.)	10.5	14.0

<sup>1</sup>Tested to *CAN/CGA - 2.17 Gas fired appliances for use at high altitudes*. In the USA, installations may require deration over 2000ft - Check local codes.

### 3.3. Wall Thickness

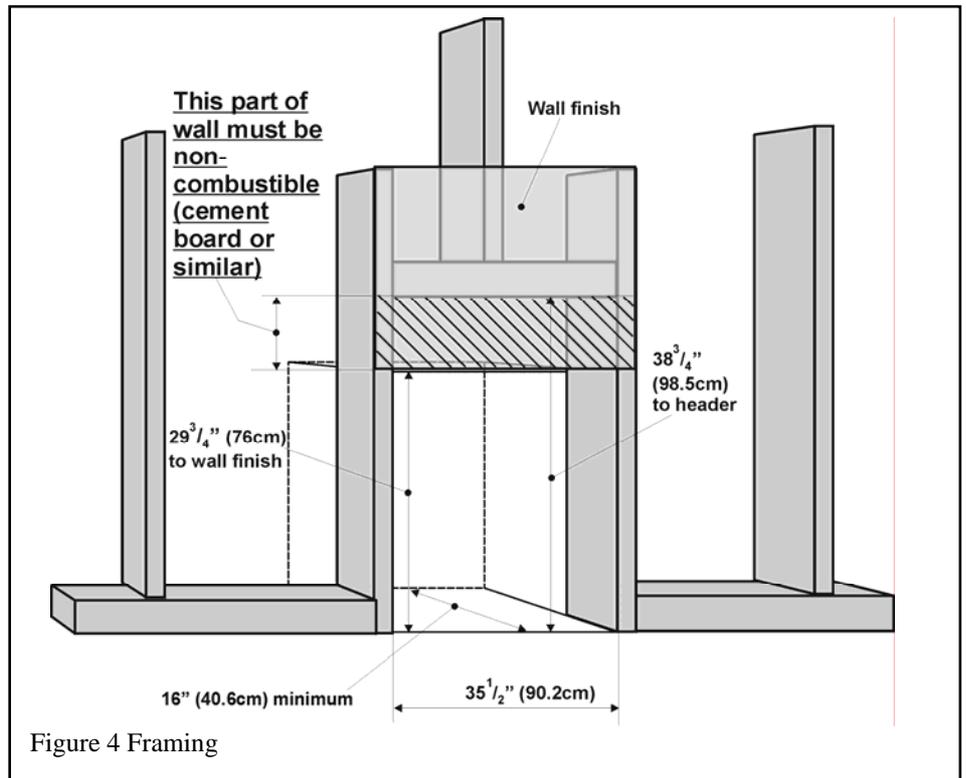
The vent system (when horizontally terminated) is approved to pass through a combustible wall up to 14" (36cm) thick. A non-combustible wall can be any thickness up to the maximum horizontal run of vent pipe allowed for the particular installation – See section 4.

## 4. LOCATION

### 4.1. Framing

The framing dimensions are shown in figure 4.

- A non-combustible hearth is not necessary in front of this appliance.
- All combustible materials must be outside the dimensions shown in figure 4.
- Be aware of the area 9" x 35½" (23cm x 90.2cm) immediately above the opening area shown hatched in figure 4 which must be constructed with non-combustible materials.



4.2.

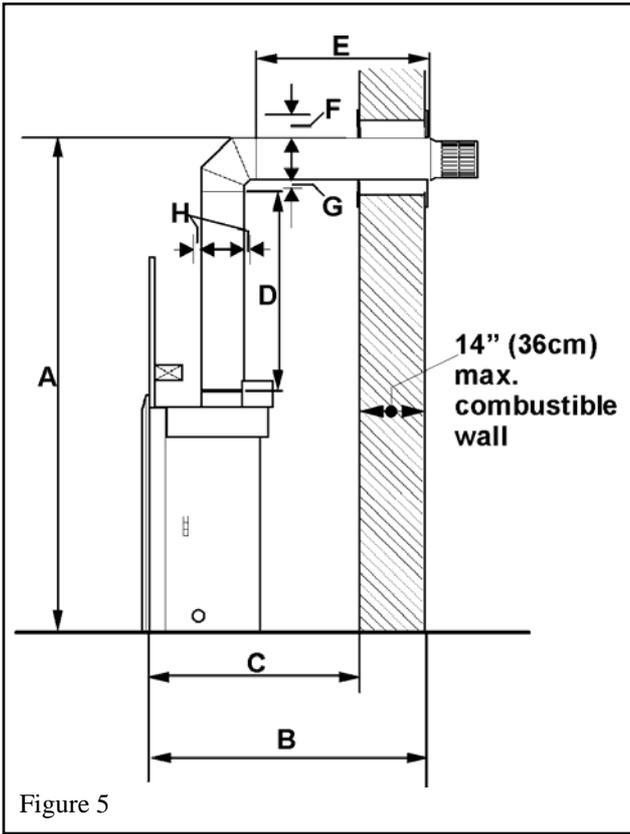


Figure 5

For installations with a horizontal rear termination, the combination of horizontal and vertical vent pipes must be within the allowed area shown in Graph 1. A minimum vertical pipe run of 6" is necessary.

Example a: If a vertical rise of 2ft 3" is required, the horizontal run must not be more than 11ft 6".

Example b: If a horizontal run of 3ft 6" is required, the vertical run must be at least 1ft 3".



The horizontal vent pipe run may be redirected by using elbows up to a total of 180° but the maximum horizontal run (E in figure 5 & graph 1) is reduced by 18" for every 45°. For example if two 90° elbows are used as in figure 5a the maximum horizontal run is reduced by 3ft per elbow – Total reduction = 6ft.

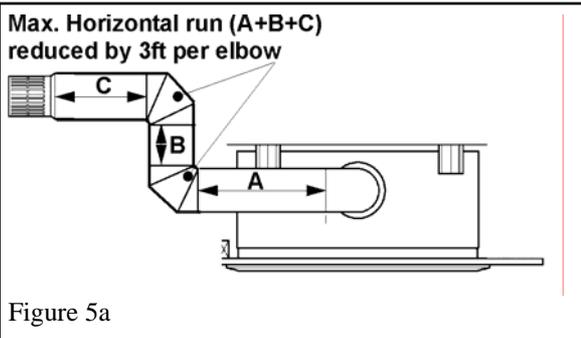


Figure 5a

### Horizontal rear termination

See figure 5.

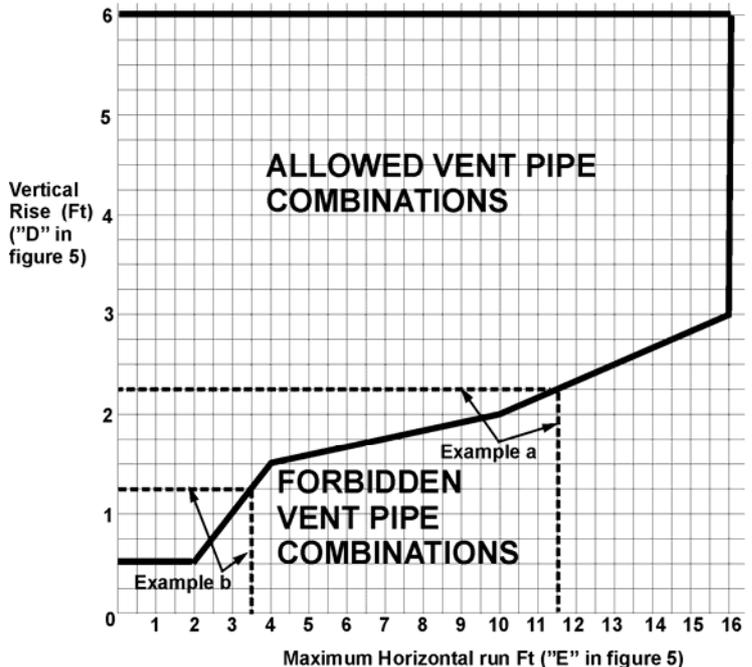
Can be used with either #551DVK standard vent kit or #984 Dura-vent terminal cap and accessories.

Adapter #817VAK, one 90° vent elbow #990B and Dura-vent pipe lengths will be required.

(See venting options section of this manual).

The location requirements are shown in the table and graph below and figure 5.

	Minimum	Maximum
<b>A:</b> From floor to top of vent duct	3ft 7 9/16" (111cm)	9ft 1 9/16" (278cm)
<b>B:</b> Frame front face to outside wall	-	17ft 4" (528cm)
<b>C:</b> Frame front face to inside wall	16" (40.6cm)	-
<b>D:</b> Vertical pipe run between vent adaptor and elbow	6" (152mm)	6ft (183cm)
<b>E:</b> Horizontal pipe run (including terminal pipe) from elbow.	-	16ft (488cm) with no elbows in horizontal run
<b>F:</b> Clearance to combustible materials above horizontal pipe run inside building (Outside wall shields/thimbles)	5" (12.7cm)	-
<b>G:</b> Clearance to combustible materials below horizontal pipe run	1 5/16" (3.3cm)	-
<b>H:</b> Clearance to combustible materials all round vertical pipe run and at sides of horizontal pipe run	2" (5.1cm)	-



### 4.3. Horizontal side termination

See figures 5 & 6.

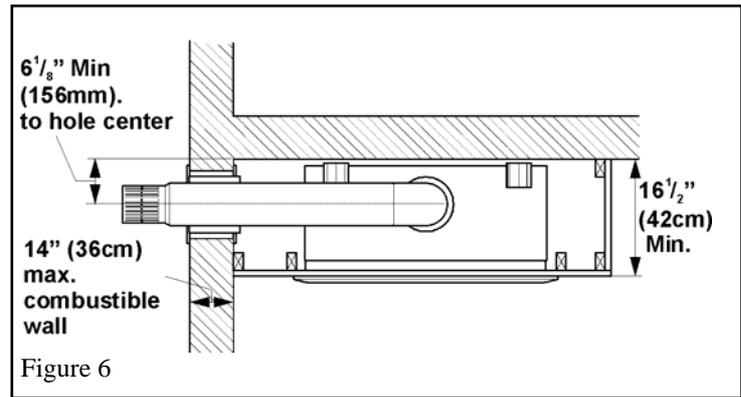
Can be used with either #551DVK standard vent kit or #984 Dura-vent terminal cap and accessories.

Adapter #817VAK, one 90° vent elbow #990B and Dura-vent pipe lengths will be required.

(See venting options section of this manual).

All vent length dimensions and clearance limits are as section 4.2.

The minimum floor location is shown in figure 6.



### 4.4. Horizontal side or rear snorkel termination

The dimensional requirements in sections 4.2 and 4.3 apply.

Adapter #817VAK, one 90° vent elbow #990B and Dura-vent pipe lengths will be required.

#942 Dura-vent thimble kit may also be necessary.

(See venting section of this manual).

### 4.5. Corner location, horizontal termination, 45° pipe bend

See figures 5 & 7.

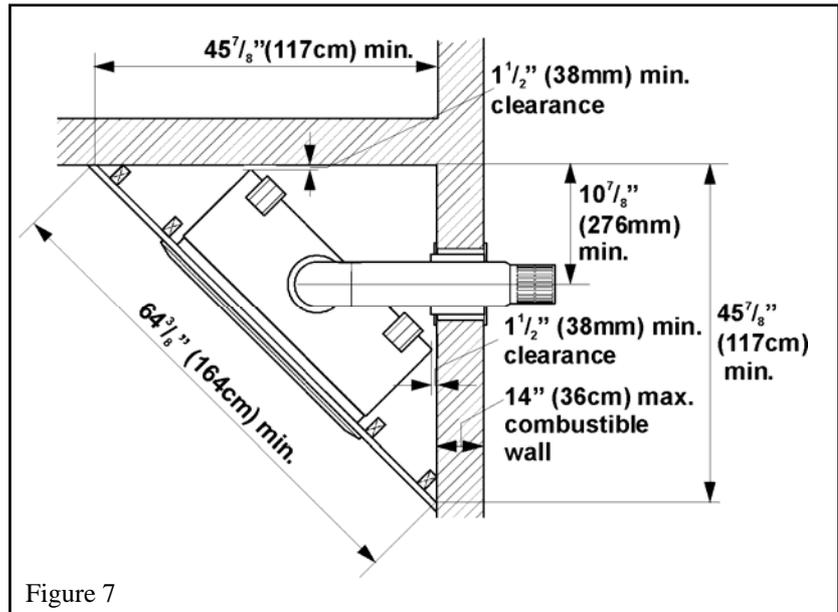
Can be used with either #551DVK standard vent kit or #984 Dura-vent terminal cap and accessories.

Adapter #817VAK, one 90° vent elbow #990B and Dura-vent pipe lengths will be required. (See venting section of this manual).

All vent length dimensions and clearance limits are as section 4.2.

The minimum corner location is shown in fig. 7.

### 4.6.



### Through the roof termination\*

See figure 8.

Adapter #817VAK, Dura-vent pipe lengths, a vertical vent terminal and roof flashing will be required. Various other ceiling or roof items may be necessary depending on the particular installation (See venting options section of this manual).

### 4.7. Offset and through the roof termination\*

See figure 9.

For situations where offset is necessary in an attic to avoid obstructions or allow useful space.

Adapter #817VAK, two 45° vent elbows #945B, wall straps, a vertical vent terminal, roof flashing and Dura-vent pipe lengths will be required. Various other ceiling or roof items may be necessary depending on the particular installation (See venting options section of this manual).

### \*Note

1. The distance from the roof to the lowest terminal discharge opening depends on the roof pitch and must be in accordance with the Dura-vent instructions supplied with the termination unit.
2. The venting system for these appliances is considered to be a *Special Venting System*. The rule in the Installation Code CAN/CGA-B149 requiring a minimum vent height of 2ft above any portion of a building within 10ft does not, therefore, apply.

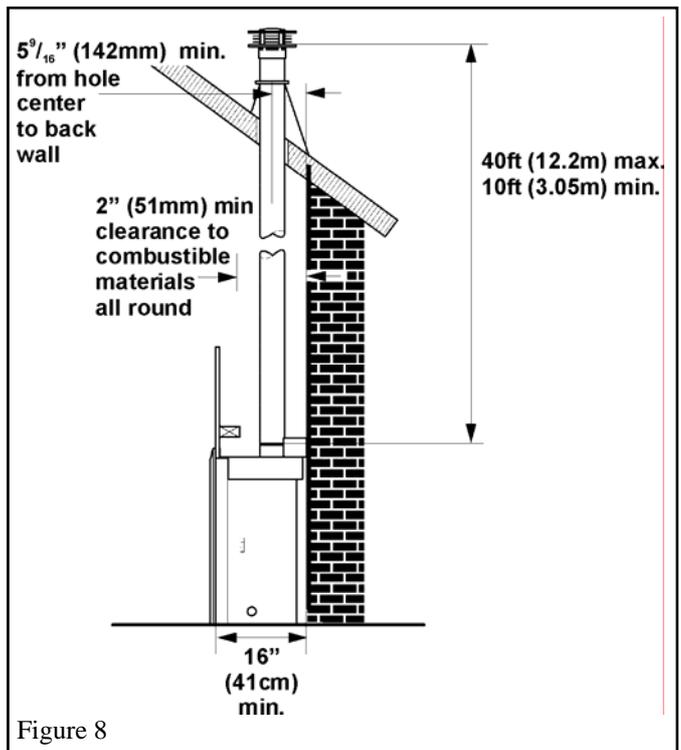


Figure 8

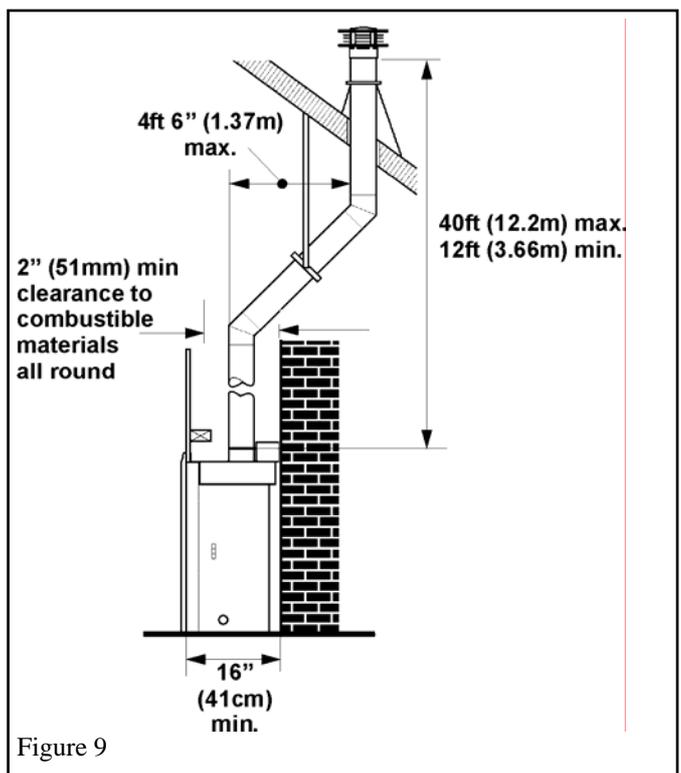


Figure 9

#### 4.8. Vent location

- The vent terminal must be located on an outside wall or through the roof.
- This direct vent appliance is designed to operate when an undisturbed airflow hits the outside vent terminal from any direction.
- The minimum clearances from this terminal that must be maintained when located on an outside wall are shown in figure 10. Any reduction in these clearances could result in a disruption of the airflow or a safety hazard. Local codes or regulations may require greater clearances.
- The vent terminal must not be recessed into a wall or siding.
- The vent terminal should be positioned where it will not be covered by any snowdrifts.

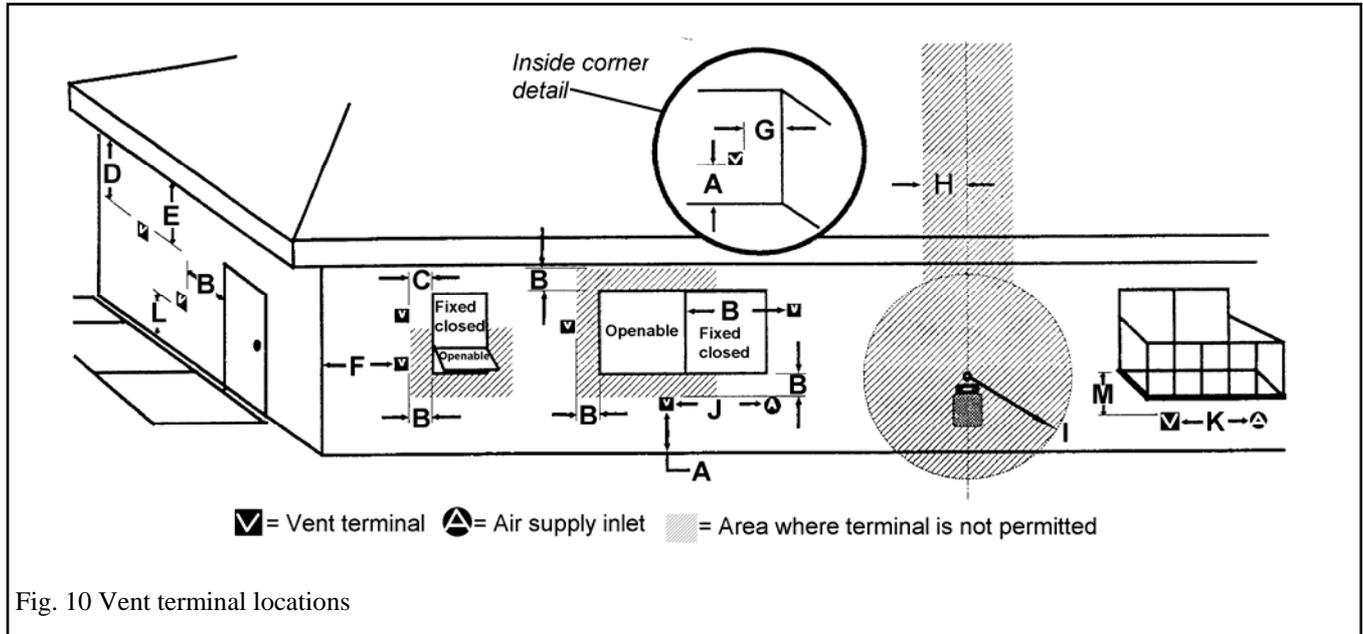


Fig. 10 Vent terminal locations

KEY	VENT TERMINAL LOCATIONS - MINIMUM DISTANCES <i>See figure 10</i>	MINIMUM CLEARANCE	
		Ins	Cms
A	Clearance above grade, verandah, porch, deck or balcony	12	30
B	Clearance to window or door that may be opened	12	30
C	Clearance to permanently closed window (recommended to prevent condensation on window)	12	30
D	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the center-line of the terminal	18	46
E	Clearance to unventilated soffit	12	30
F	Clearance to outside corner	12	30
G	Clearance to inside corner	12	30
H	Horizontal clearance to center-line of meter/regulator assembly located below the terminal	36	90
I	Clearance to service regulator vent outlet	72	180
J	Clearance to non-mechanical air supply inlet to the building or the combustion air inlet to any other appliance	12	30
K	Clearance to a mechanical air supply inlet	72	180
L	Clearance above paved sidewalk or a paved driveway located on public property. <i>Note: A vent must not terminate directly above a sidewalk or paved driveway, which is located between two single family dwellings and serves both dwellings.</i>	84	210
M	Clearance under a verandah, porch, deck or balcony <i>Only permitted if veranda, porch, deck or balcony is fully open on a minimum of 2 sides beneath the floor.</i>	12	30

Note: Local codes and regulations may require different clearances.

## 5. SUPPLY GAS

Heater engine unit #535EAN is used with all natural gas installations.

Heater engine unit #535EAP is used with all propane installations.

The supply pressure must be between the limits shown in section 3.2 of this manual.

The supply connection is  $\frac{3}{8}$ " NPT.

The opening for the gas supply line is at the rear left corner of the appliance.

## 6. PACK CONTENTS

See figure 11

### **#535EAN or #535EAP Engine unit**

- 1 Appliance engine unit fitted with window
- 1 Ceramic ash bed
- 5 Ceramic logs
- 1 Firebox ceramic rear wall
- 2 Firebox ceramic side walls
- 1 Wall switch & plate (wired)
- 1 Wire harness
- 1 Battery holder
- 4 1.5V AA batteries
- 1 Port cover
- 2 Frame side fixing brackets
- 1 Ash bed rear support
- 2 Restrictor plates for horizontal termination installations
- 2 Restrictor plates for through the roof termination installations
- 1 Gas inlet pipe connection adapter
- 1 Top heat shield panel
- 1 Frame top support angle
- 2 Stand-off brackets
- 2 Screws for wall switch plate
- 4 Screws for frame side fixing brackets
- 2 Screws for top heat shield panel
- 3 Screws for frame top support angle
- 6 Screws for stand-off brackets
- 2 Screws for vent fixing
- 4 Woodscrews for fixing appliance to studding

### **#601SFB Standard metal front (Alternative)**

- 1 Upper louver unit
- 1 Lower louver unit
- 2 Side channels
- 2 Hinge studs
- 2 Hinge spacers
- 2 Magnet counterplates

### **#602CFB Cast iron front (Alternative)**

- 1 Top casting unit
- 1 Bottom casting unit

### **#553RCK Remote control unit (Additional option)**

- 1 Receiver unit
- 1 Remote control hand unit
- 1 9V Battery

### **#609WEK Wall switch extension wires (Additional option)**

- 1 10ft long extension wire harness

### **#551DVK Standard horizontal through-the-wall vent kit (Alternative to Dura-vent unit)**

- 1 Vent pipe & terminal unit
- 2 Wall plates
- 2 Wall shields (Supplied flat)
- 12 Thread cutting screws
- 1 Styrofoam cutting support do-nut
- 8 Wood screws
- 8 Wall plugs

### **#555CFK Circulating fan kit (Additional option)**

Details are with the kit

### **#603FSK Black or #604 Champagne Additional optional 3 sided trims**

- 1 Top trim
- 2 Side trims
- 2 Trim fixing brackets
- 2 Corner connection plates
- 8 Grub screws for corner connections
- 10 Screws for side trims & engine attachment

### **#605FSK Black or #606FSK Champagne Additional optional 4 sided trims**

- 2 Top & bottom trims
- 2 Side trims
- 2 Trim fixing brackets
- 4 Corner connection plates
- 16 Grub screws for corner connections
- 10 Screws for side trims & engine attachment

Take care when removing the contents from the packaging to prevent damage. Check that all the contents are in the packs and are undamaged.

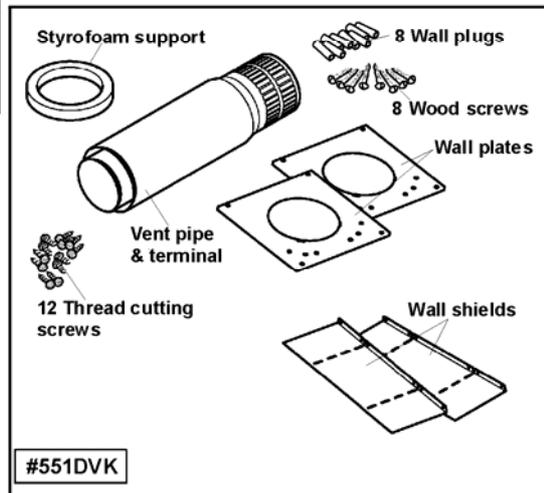
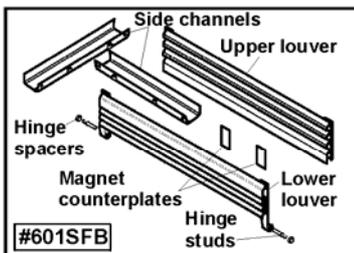
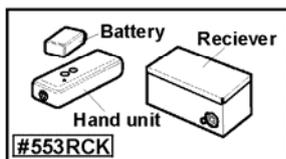
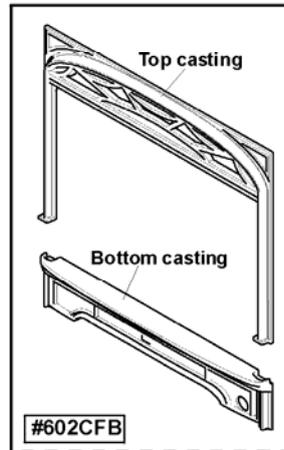
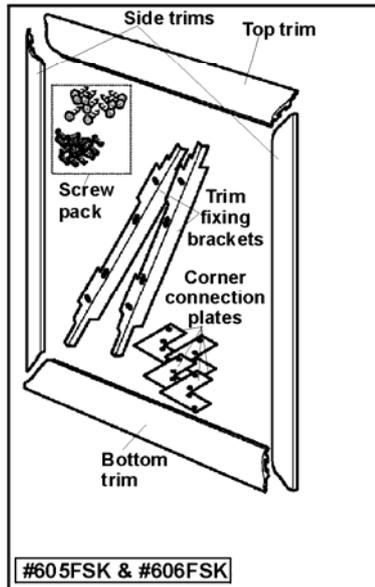
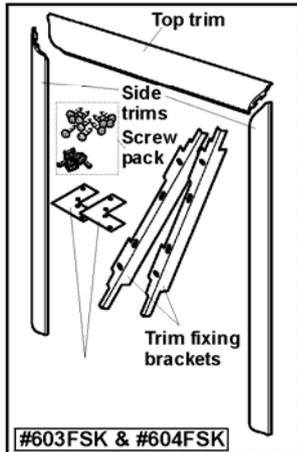
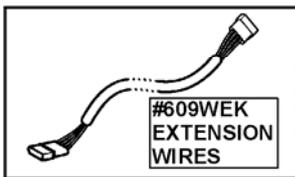
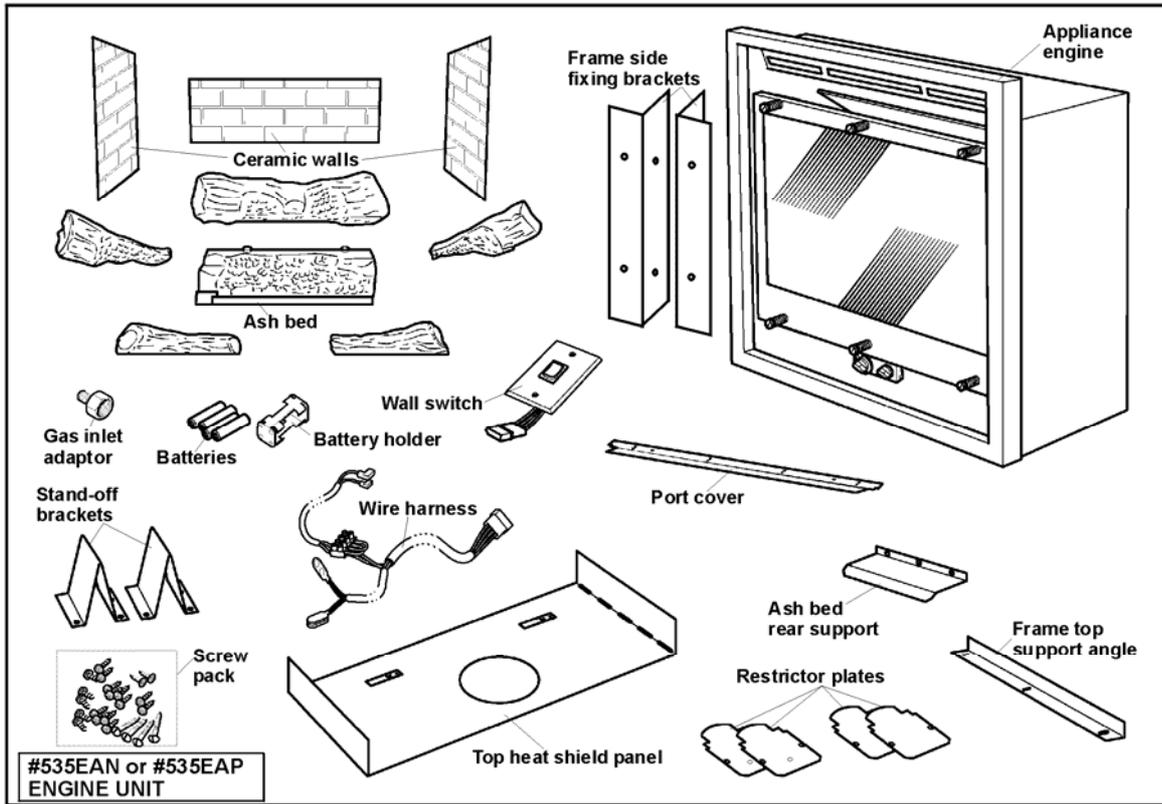


Figure 11 Pack contents

## 7. APPLIANCE PREPARATION

### 7.1. Window Removal

See figure 12.

- Turn the top three spring loaded window bolts through 90° to release the window from the firebox.
- Remove the bottom three spring-loaded window bolts.
- Detach the chain from the top right corner of the window.
- Carefully lift the window away. Keep the window and bolts in a safe place.

### 7.2. Ignition Spark Check

The pilot burner and electrode unit is at the left end of the burner.

Push in the lighting knob and turn counter-clockwise through the "IGN" position to "PILOT". A spark should flash across from the pilot electrode to the pilot burner shield.

See figure 13.

### 7.3. Flame Control Motor Check

See figure 14.

- Fit the battery holder to the **black** connector pad.
- Fit the four batteries into the holder.
- Fit the two "L" terminals to the tabs at the left side of the control unit
- Connect the switch unit to the wire harness.
- Operate the switch. Pressing one side of the switch should cause the flame control knob to rotate counterclockwise. Pressing the other side should cause clockwise rotation.
- Disconnect after checking.

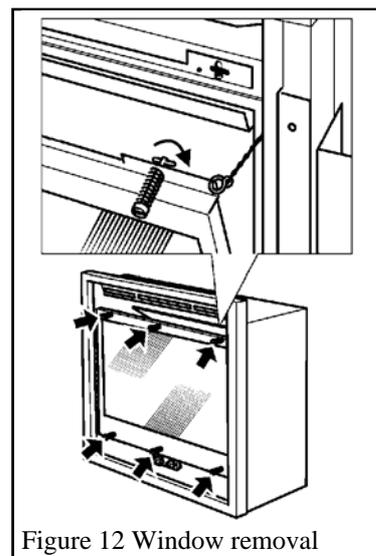


Figure 12 Window removal

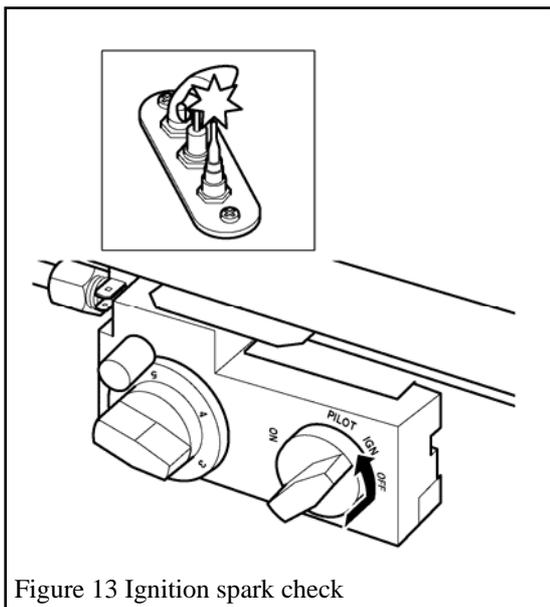


Figure 13 Ignition spark check

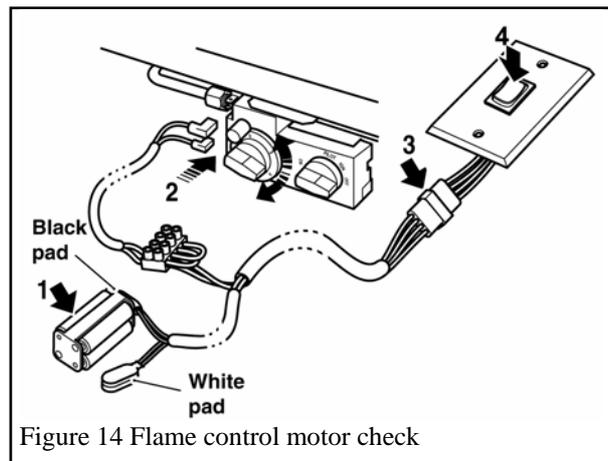


Figure 14 Flame control motor check

#### 7.4. # 817VAK Pipe Adapter Fitting

Fit the Dura-vent adapter #817VAK securely over the outer vent collars. See figure 15. Drill through the adapter outer tube and the appliance outer collar for two #6 screws supplied. **Make sure that the drill does not penetrate the inner tubes.** Secure with the screws.

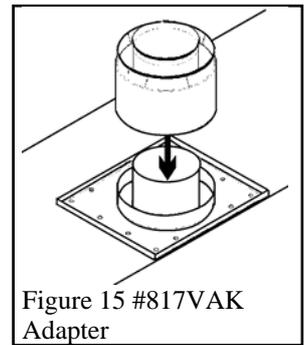


Figure 15 #817VAK Adapter

#### 7.5. Top Heat Shield & Stand-off Fitting

See figures 16 & 17

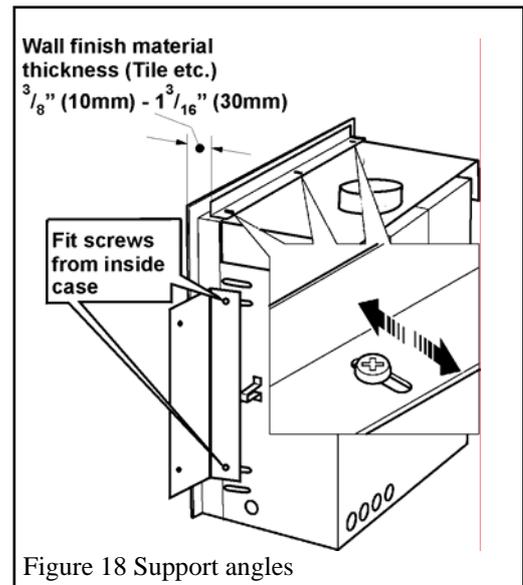
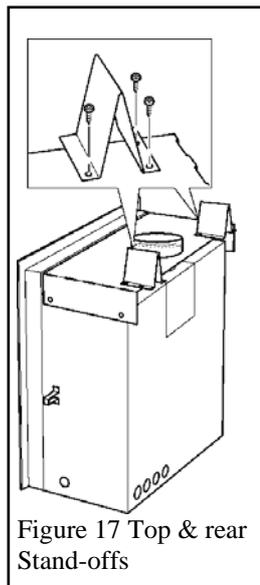
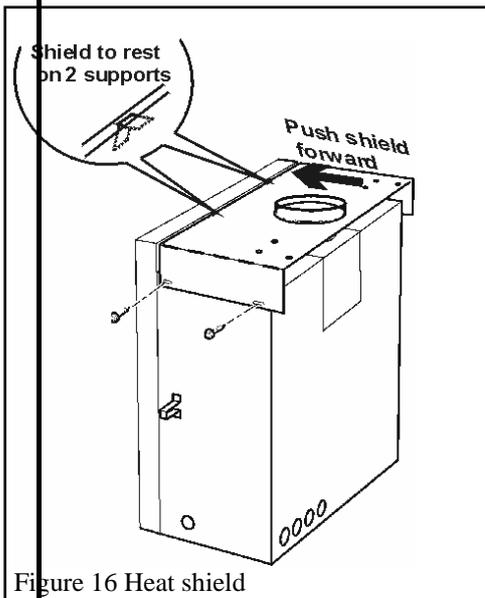
- Remove the screws at the top rear corner of the case sides.
- Locate the heat shield over the vent pipe adapter.
- Support the front of the shield on the two angle supports.
- Secure the shield to the case sides by refitting the two screws at the top rear corners and by two screws from the pack fitted near the front.
- Bend the two top rear stand-offs and fit to the heat shield with three screws each – see figure 17.

#### 7.6. Support Angle Fitting

See figure 18

The distance from the wall angles to the front face of the heater case is adjustable between  $\frac{3}{8}$ " (10mm) and  $1\frac{3}{16}$ " (30mm) to allow for a range of wall finish material thicknesses (e.g. tile etc).

- Fit the top angle support to the case top with three screws.
- Fit the two side angle supports with two screws each. Fit the screws from inside the heater case.



## 7.7. Attaching Air Restrictors

There are two types of restrictor supplied with each #535 engine unit. One type is for installations with horizontal vent termination and the other is for installations with through-the-roof termination. Figure 19 identifies them.

The restrictors cover part of the openings in the firebox rear wall ports – See figure 20.

To fit the restrictors, remove the center screws from the rear ports and fit the restrictors using these screws. To set the restrictors at maximum port opening, slacken the bottom screws in the ports, slide the restrictors down as far as possible and tighten the screws over the restrictors.

To set the restrictors at minimum port opening, slide the restrictors up as far as possible and tighten the screws.

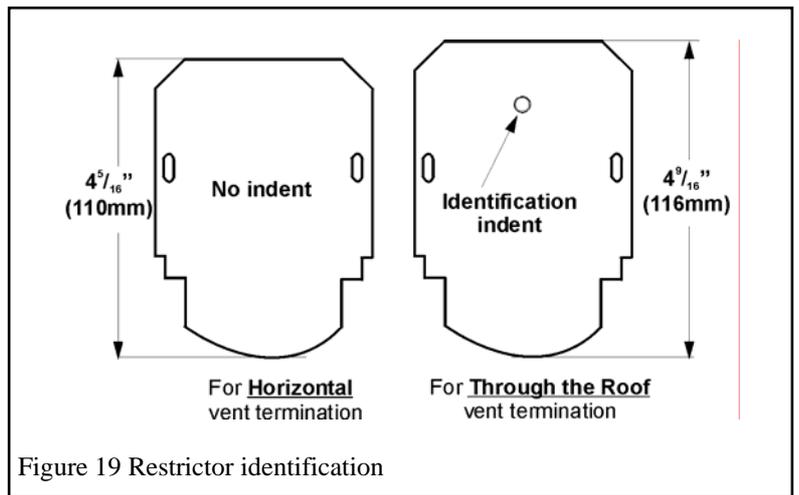


Figure 19 Restrictor identification

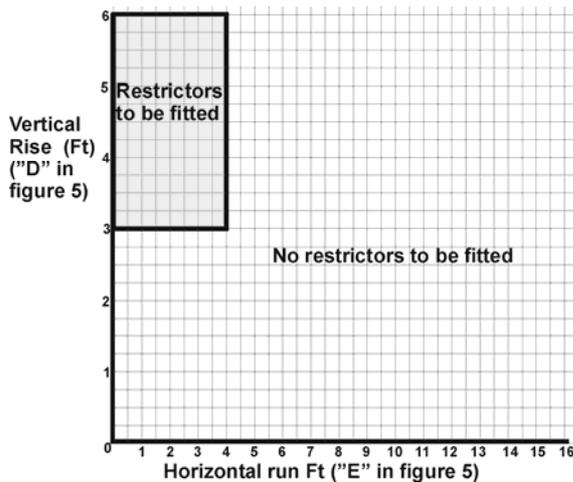
### 7.7.1. Installations with Horizontal Termination

Do not fit restrictors if the vertical rise is less than 3ft.

Do not fit restrictors if the horizontal run is more than 4ft.

For installations with a horizontal run of 4ft or less and having a vertical rise of 3ft or more fit the restrictors at maximum port opening position. See Graph 2.

*On models 535 the horizontal type restrictors are never set at any position except maximum port opening.*



Graph 2

### 7.7.2. Installations with Through-the-roof Termination

For vent heights up to 20ft. Fit the restrictors at **maximum** port opening position.

For vent heights above 20ft Fit the restrictors at **minimum** port opening position.

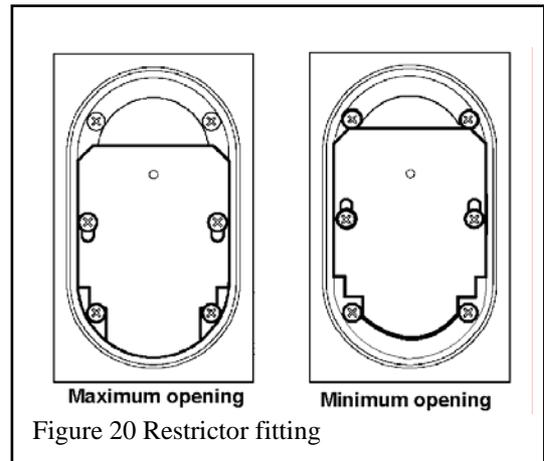


Figure 20 Restrictor fitting

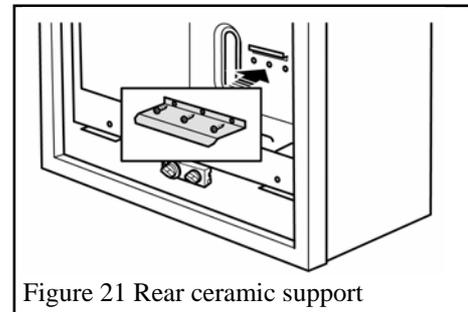


Figure 21 Rear ceramic support

## 7.8. Attaching Rear Ceramic Support

Fit the rear ceramic support to the firebox back panel with three screws. See figure 21.

## 7.9. Attaching to the Framing

- Place the heater in position in the framing.
- Secure the side support angles to the side studding through two holes each side with the woodscrews supplied. The top support angle should abut the cement board but is not fixed to the framing.
- Check the wall finish requirements with the homeowner. If necessary, adjust the position of the heater so that the distance from the front of the heater case to the angles is suitable for the thickness of the wall finish (e.g. tile, etc.) – see figure 21a.

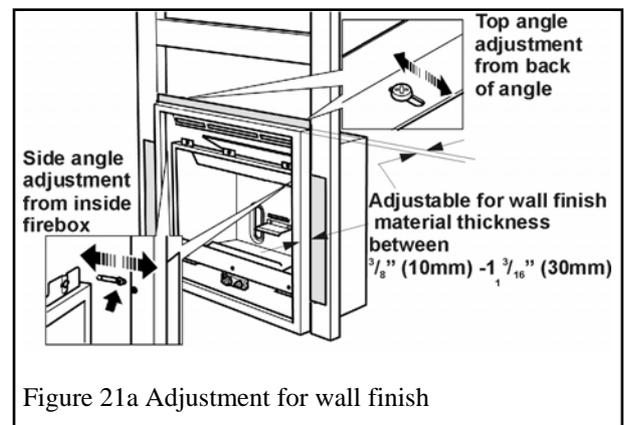


Figure 21a Adjustment for wall finish

## 8. INSTALLATIONS WITH HORIZONTAL TERMINATION – INSTALLING TO WALL

See section 4 for full range of horizontal termination applications.

### 8.1. Wall Opening

- Fit all the required Dura-vent DV GS pipes and elbows up to the wall to check the wall opening position. See the Dura-vent instructions supplied with the sections.
- Make Wall Opening.  
If the wall is constructed of solid non-combustible materials and has no combustible surface cladding (including wood) inside or outside then the wall plates or Dura-vent thimbles will not be required.  
If the wall has combustible material, mark the wall for a 10" x 10" square. If the wall is totally non-combustible (e.g. masonry block or concrete) mark for a 7" circular hole. In both cases, the center of the hole should line up with the centerline of the horizontal vent.

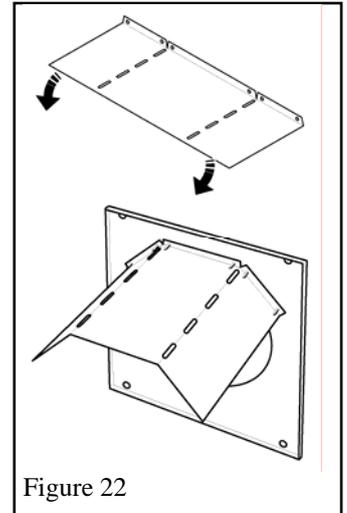


Figure 22

### 8.2. Valor Terminal #551DVK - Preparing Wall Plates

*The wall plates are not used for 7" hole in non-combustible walls.*

1. Bend the wall shields and screw to the inside of the wall plates with 6 thread cutting screws per plate. See figure 22.
2. Bend the inner wall plate tab as shown in figure 23 so that the seam on the terminal tube will pass clearly through the plate with the wall shield at the top. Place the inner wall plate over the terminal unit.
3. Slide the terminal into the wall. Make sure that the drain hole is at the bottom – the seam will be through the notch in the wall plates – See figure 24.
4. Slide the inner wall plate up to the wall. Mark the four holes for the wall screws. Slide the plate away.
5. Drill and plug the wall.
6. Screw the plate to the wall with 4 screws provided.
7. Bend the outer wall plate tab as shown in figure 23.
8. Place the outer wall plate over the terminal unit. Slide the wall plate up to the wall. Mark the four holes for the wall screws. Slide the plate away.
9. Drill and plug the wall.
10. Screw the plate to the wall with 4 screws provided. See figure 24.

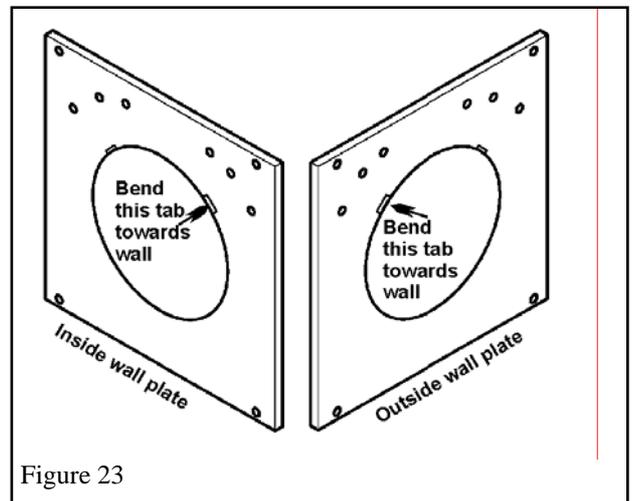


Figure 23

### 8.3. Dura-vent Terminals – Installing to wall

Unless the wall is totally non-combustible, fit Dura-vent wall thimbles #942.

Install as detailed in the Dura-vent instructions supplied with the pipes.

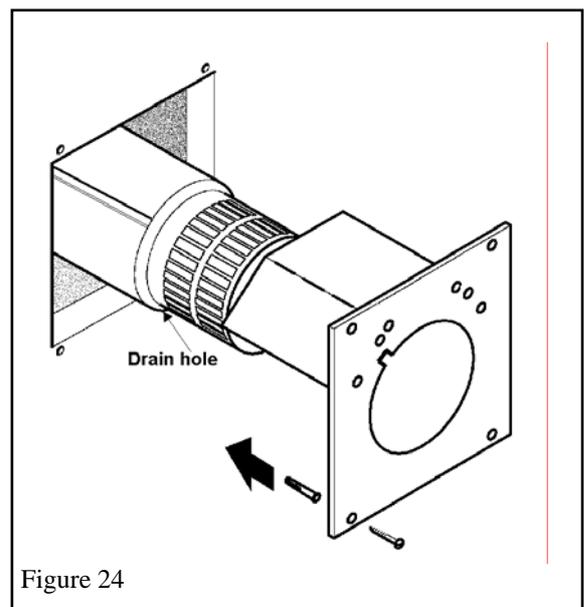


Figure 24

## 9. INSTALLATIONS WITH THROUGH THE ROOF VERTICAL TERMINATION

- Check the roof pitch to determine which roof flashing will be needed - see vent accessories section 2.4.
- The distance from the roof to the lowest terminal discharge opening (“H” in figure 25) depends on the roof pitch and must be in accordance with the Dura-vent instructions supplied with the termination unit.

*Note: The venting system for these appliances is considered to be a **Special Venting System**. The rule in the Installation Code requiring a minimum vent height of 2ft above any portion of a building within 10ft does not therefore apply.*

- The minimum clearances to combustibles all round the vent pipes must be in accordance with the dimensions shown in section 4 of this manual.
- Drop a plumb from the ceiling to the center of the appliance vent opening. Mark the position on the ceiling. Drill a small hole at the marked position.
- Determine the position where the vent will pass through the roof. If directly above the position where it penetrates the ceiling, drop a plumb from the roof to the small hole in the ceiling and mark the roof at this spot. If rafters or other obstructions will prevent a vertical exit or if clear attic space is desired, the roof outlet can be offset using 45° elbows - see fig. 25.

Drill a small hole at the marked position.

- A ceiling firestop must be installed at the second floor and higher floors.

A ceiling support should be used below the flat ceiling.

To install the firestop & support cut and frame a 10” (254mm) square hole centered on the small hole previously drilled - see fig. 26.

- Fit vent accessory elbows and pipe lengths as required up through ceiling support boxes and firestops. If installation includes offset, support the offsetting pipes every 3 feet (1m) with wall straps (fig. 25).
- Cut a hole in the roof centered on the small hole. The hole must allow for the minimum clearances to combustibles - see section 4.
- Fit pipe lengths through the roof. Fit roof flashing securing it with roofing nails.
- Fit storm collar and termination cap.

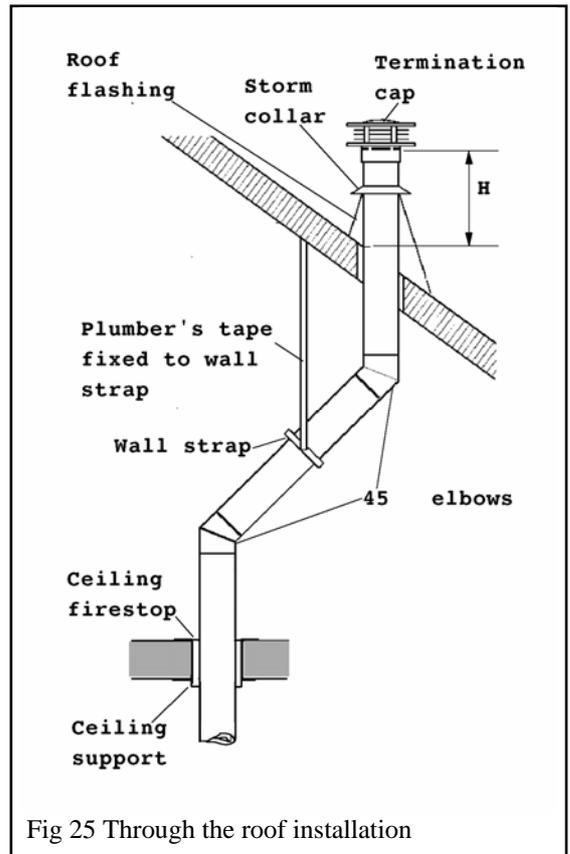


Fig 25 Through the roof installation

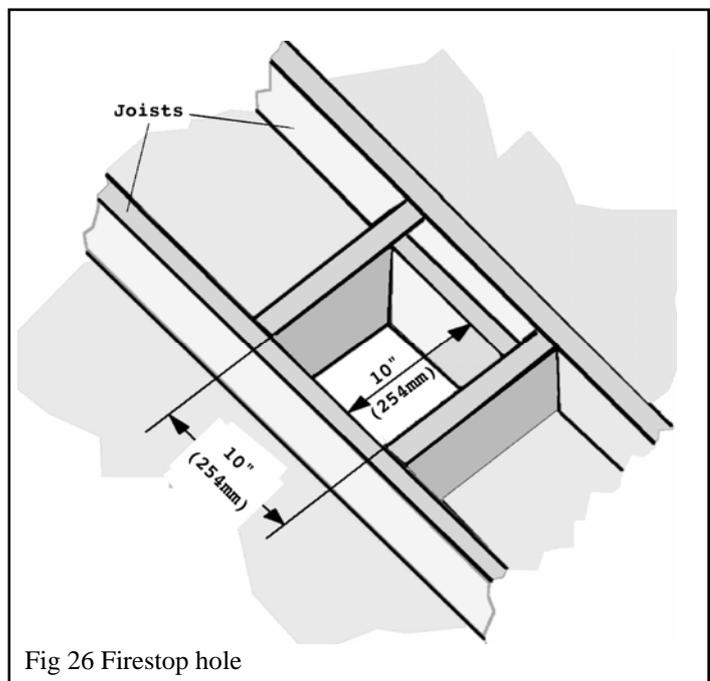


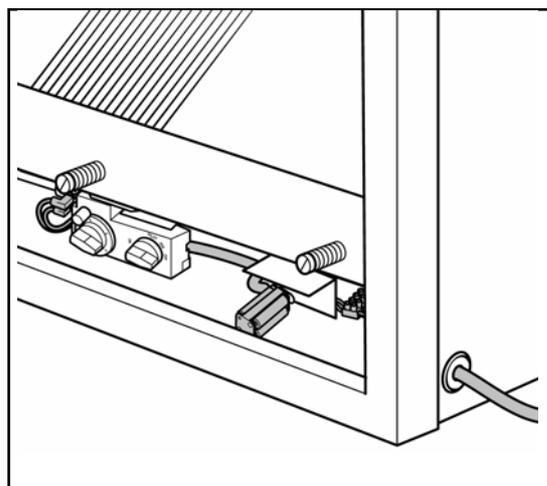
Fig 26 Firestop hole

## 10. SWITCH FITTING

### 10.1. For wall switch as only active switch

See figures 27, 28 & 29

- Feed the switch wires from inside the appliance case through the opening at the bottom right side of the heater case.
- Route round the back of the valve and connect the two “L” terminals to the tabs at the left side of the control unit. See figure 27.
- Connect the battery holder to the **black** connection pad.
- If using the switch extension wires, connect the extension to the wire harness.
- Fit the four 1.5 V batteries. Place the battery holder on the “Velcro” pad in front of the battery shield. See figure 28.
- A standard wall switch box should be secured in the framing to accommodate the wall switch. If the required location is over 4ft away from the appliance, an optional #609WEK unit will be required.
- When fitting the wall plate to the wall box, attach the way up shown in figure 29 so that pressing the upper half of the switch increases the flames.



### 10.2. For active remote control with or without active wall switch

**Caution! Don't connect the batteries in the remote control receiver until the wires are connected to the burner control unit. A short circuit could result in destruction of the electrical components.**

- Feed the switch wires from inside the appliance case through the opening at the bottom right side of the heater case.
- Cut off the “L” terminals from the switch wires **on the remote control receiver** and remove insulation from approximately ¼” at ends of wires. See figure 30.
- Securely connect the wires to the terminal block. **Connect the black wire to the terminal opposite the brown wire. Connect the wire with the white stripe to the terminal opposite the yellow wire.** See figure 31.
- Route the harness wires with the “L” terminals round the back of the valve and connect to the tabs at the left side of the control unit.
- Remove the remote control receiver lid. Remove the cover from the **white** connection pad. Fit this connection pad to the remote control receiver terminals. See figure 32.
- Fit the **black** connection pad to the battery holder. Fit four 1.5V batteries. See figure 32.
- Place the batteries and connection pad in the receiver box and replace the lid.
- Fit the 9V battery to the handset transmitter.
- Place the remote control receiver on the “Velcro” pad in front of the battery shield. See figure 33.
- If using the switch extension wires, connect the extension to the wire harness.
- If using the wall switch, attach the wall plate the way up shown in figure 29 so that pressing the upper half of the switch increases the flames.

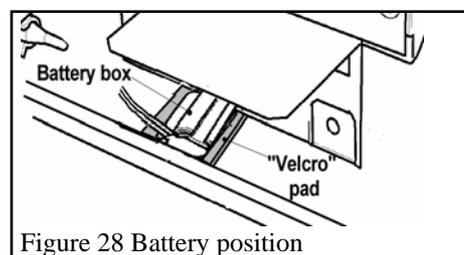


Figure 28 Battery position

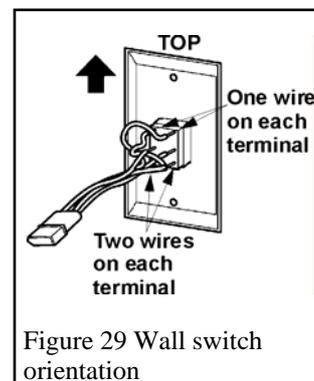


Figure 29 Wall switch orientation

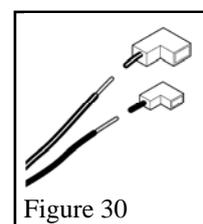


Figure 30

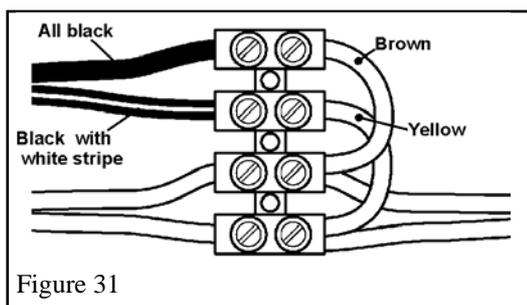


Figure 31

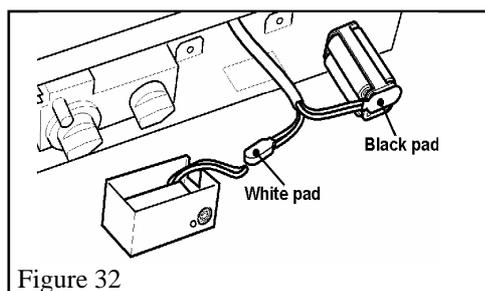


Figure 32

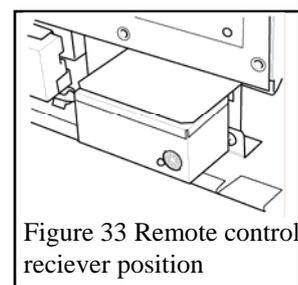
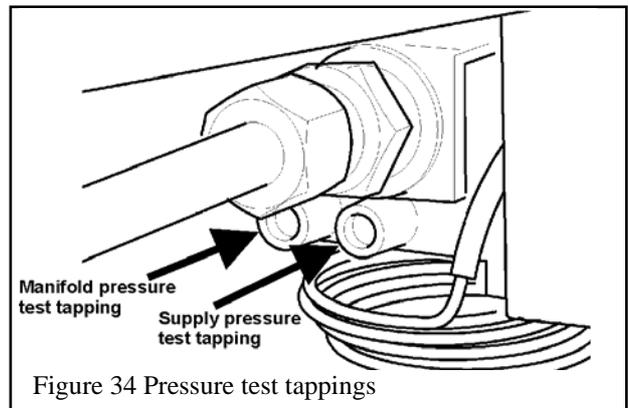


Figure 33 Remote control receiver position

## 11. GAS SUPPLY INSTALLATION & AERATION SETTING

### 11.1. Gas Supply Installation

- The gas supply pipe should enter the appliance case through the opening at the rear left side. The supply pipe should be connected to the appliance gas inlet pipe situated at the left side of the control unit. Supply line connection to the inlet pipe is  $\frac{3}{8}$ "NPT.  
*If the circulating fan is to be installed, be aware that the supply pipe run inside the case should be at the same height as the appliance inlet pipe in order to clear the fan. If intending to fit an internal isolating valve, check that it will be clear of the fan.*
- Use only new black iron or steel pipes or copper tubing if acceptable - check local codes. *Note that in USA copper tubing must be internally tinned for protection against sulfur compounds.*
- Unions in gas lines should be of ground joint type.
- The gas supply line must be sized and installed to provide a supply of gas sufficient to meet the maximum demand of the appliance without undue loss of pressure.
- Sealant used must be resistant to the action of all gas constituents including LP gas. Sealant should be applied lightly to male threads to ensure excess sealant does not enter gas lines.
- The supply line should include a manual shut-off valve to allow the appliance to be disconnected for servicing.
- A plugged  $\frac{1}{8}$ "NPT tapping must be installed in the line. The tapping must be accessible for test gauge connection and be immediately upstream of the gas supply connection to the appliance.
- Pressure test the supply line for leaks.
  - ▶ The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of  $\frac{1}{2}$ psig (3.5kPa).
  - ▶ The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than  $\frac{1}{2}$ psig (3.5kPa).
  - ▶ Failure to either disconnect or isolate the appliance during pressure testing may result in regulator or valve damage. Consult your dealer in this case.
- The minimum supply pressure is given in section 3 of this manual.
- All piping and connections must be tested for leaks after installation or servicing. All leaks must be corrected immediately.
- When testing for leaks:
  - ▶ Make sure that the appliance is turned off.
  - ▶ Open the manual shut-off valve.
  - ▶ Test for leaks by applying a liquid detergent or soap solution to all joints. Bubbles forming indicate a gas leak. *Never use an open flame to check for leaks.*
  - ▶ Correct any leak detected immediately.
- The pressure test tapping locations are shown in figure 34. A built-in non-adjustable regulator controls the burner manifold pressure. The correct pressure range is shown in the table in section 3 of this manual. The pressure check should be made with the burner alight and the thermostat at its highest setting. See lighting instruction section for full operating details.



### 11.2. AERATION SETTING CHECK

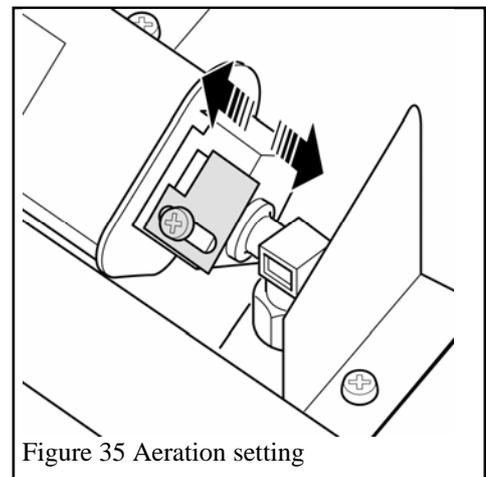
Aeration is factory set.

The setting is non-adjustable for LP appliances.

For natural gas appliances, the shutter is factory set at an aeration gap that will give optimum performance for the vast majority of installations.

However, in a few unusual installations performance may be improved by adjusting the aeration. The need for adjustment should be determined by operating the appliance with the ceramic fuel effects and window installed. See the "Final checks" section in this manual for adjustment details.

Adjust the aeration by slackening the aeration plate screw and sliding the plate. In an extreme circumstance, the plate can be totally removed. See figure 35.



## 12. CERAMIC FUEL BED INSTALLATION

### 12.1. Ceramic Walls Installation

1. Locate the ceramic rear wall in the channel at back of the firebox and flat against the back of the firebox. See figure 36.
2. Locate the side walls against the sides of the firebox. Make sure that they are behind the raised edges of the burner module base at the back corners. See figure 37.
3. Remove two screws from under the top front of the firebox. Using these screws fit the port cover. See figure 38.

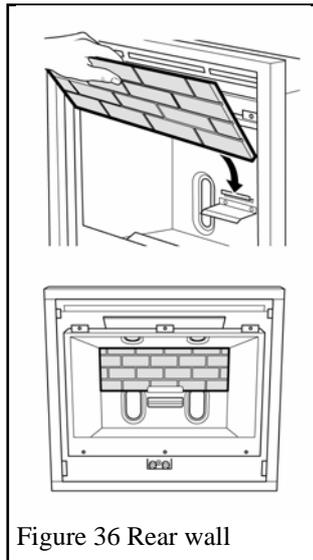


Figure 36 Rear wall

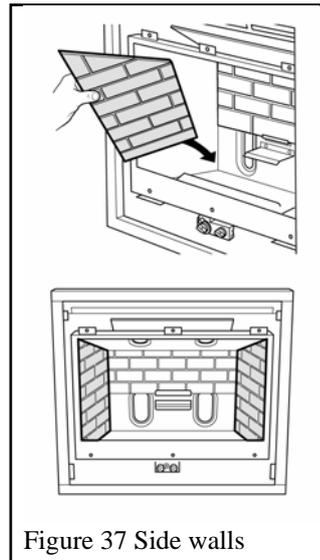


Figure 37 Side walls

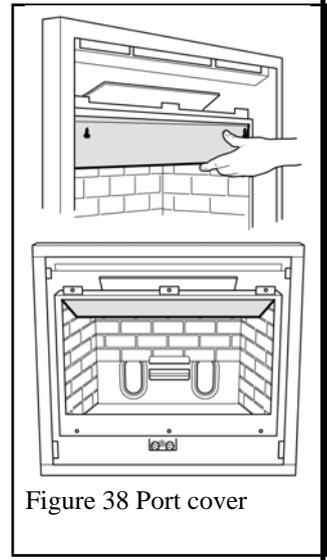


Figure 38 Port cover

### 12.2. Ceramic Logs Installation

1. Place the ash bed in position. The projections at the front of the ash bed locate against the sloping metal stops immediately behind the burner. See figure 39.
2. Place the rear log in position locating the two top projections in the ash bed into the holes in the rear log. See figure 40.
3. Place the two front logs at the front of the firebox as shown in figure 41.
4. Identify the right side center log. It is thinner than the left side log. Place the right side center log in position locating the thick part on the right side of the ash bed with its "nose" resting at the center of the ash bed as shown in figure 42.
5. Place the left side center log in position locating the thick part on the left side of the ash bed with its "nose" resting on top of the right center log. See figure 43.

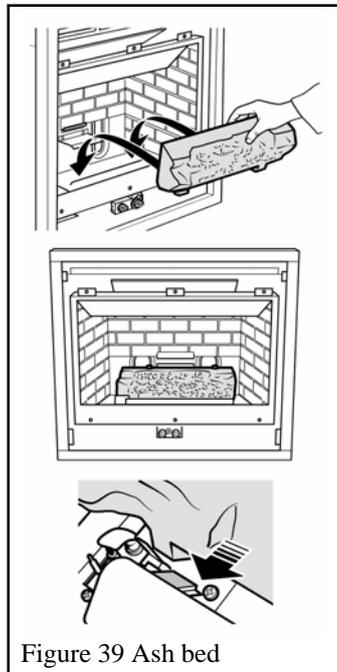


Figure 39 Ash bed

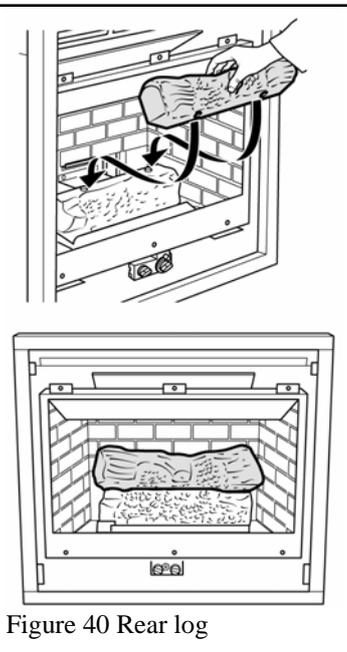


Figure 40 Rear log

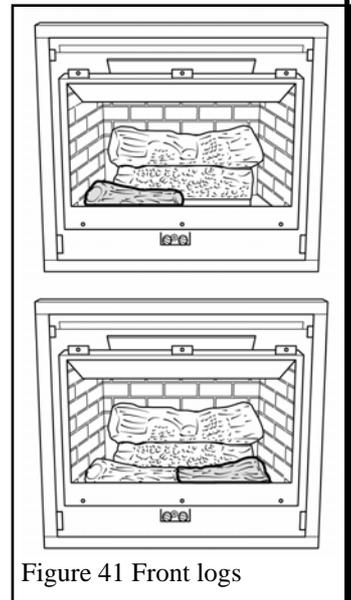


Figure 41 Front logs

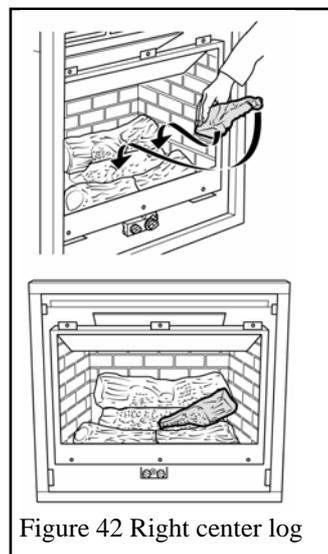


Figure 42 Right center log

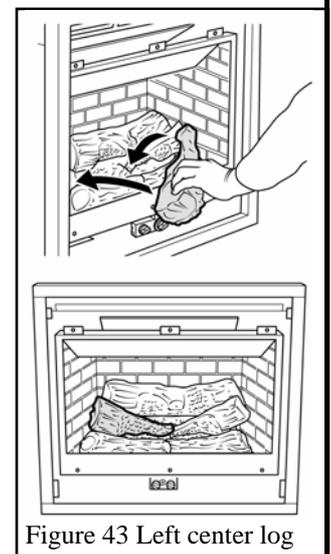


Figure 43 Left center log

### 13. WINDOW REFITTING & CHECKING

- Refit the window with the bottom three bolts. The bolts should be screwed in securely.
- Refit the chain to the top right corner of the window.
- Refit the top three bolts securing by turning them through 90°.
- Pull the top of the window forward and release to check that the it opens slightly and returns in the event of a delayed ignition explosion. See figure 44.
- Similarly check the bottom of the window by pulling it forward and releasing. See figure 44.

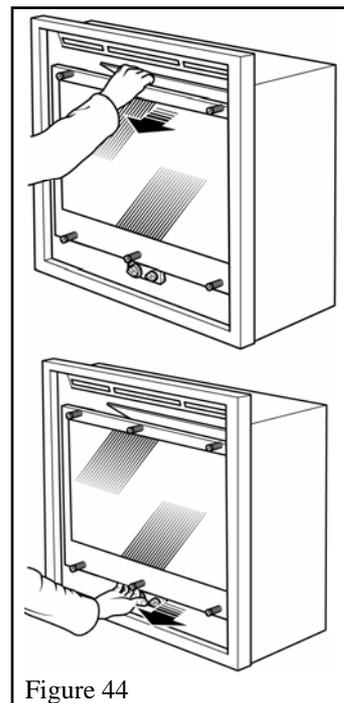


Figure 44

### 14. OPERATION CHECKS

- Check ignition, pilot stability, burner flames and the full range of the thermostat settings using the rotary switch inside the appliance and all other controls (wall switch, remote hand unit). See owner's lighting instructions further on in this manual for full details.

- Aeration adjustment

As described in section 11, for natural gas appliances, the burner aeration is adjustable. For the vast majority of installations, no adjustment will be necessary. However, in a very few instances, performance may be improved by sliding the shutter to adjust the aeration by (See figure 35). Evaluate the aeration only after the unit has warmed up – approximately 15 minutes. Increasing aeration will cause the flame to appear more transparent and blue making the ceramic fuel effects glow more. Decreasing aeration will cause the flames to appear more yellow or orange making the fuel effects glow less. ***Too little aeration may result in black carbon forming and dropping into the firebox.***

## 15.FRONT INSTALLATION

### 15.1. Additional Optional 3 or 4 Sided Trims

• Slide a corner connection plate into the channels in the top trim and a side trim. Butt the two trims together. Fit four grub screws and tighten to secure the trims and corner plate. See figure 45.

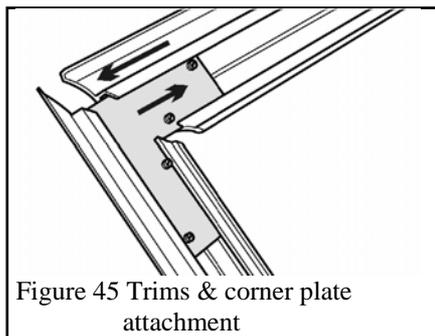


Figure 45 Trims & corner plate attachment

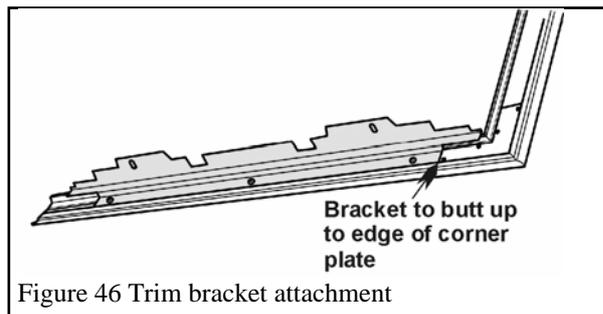


Figure 46 Trim bracket attachment

- Repeat for the other corner(s).
- Attach the two trim fixing brackets to the side trims with three screws each side. The brackets must butt up to the edges of the corner connection plates. See figure 46.
- Attach the complete trim unit to the firebox with four screws as shown in figure 47.

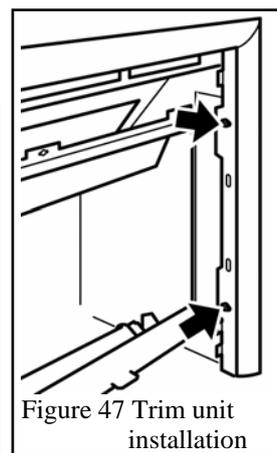


Figure 47 Trim unit installation

### 15.2. #601SFB Standard Metal Front

- Fit the lower louver unit using the hinge studs and hinge spacers as shown in figure 48.
- Fix the two adhesive backed magnet counterplates to the tabs at the firebox sides which line up with the magnets on the lower louver. See figure 48.
- Fit the two side channels by hooking into the openings at the sides of the firebox as shown in figure 49.
- Attach the upper louver by hooking over the tabs near the top of the firebox sides. See figure 50.

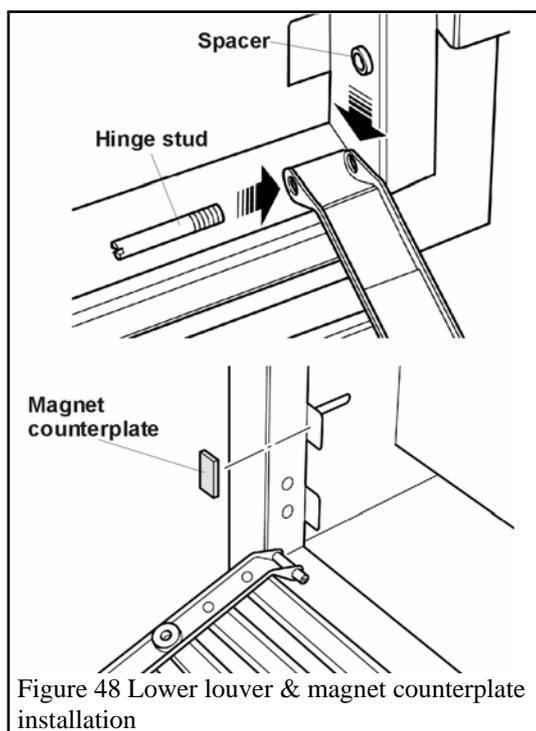


Figure 48 Lower louver & magnet counterplate installation

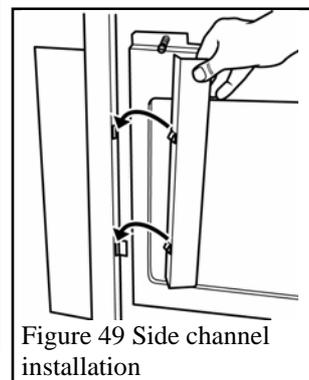


Figure 49 Side channel installation

### 15.3. #602CFB Cast Iron Front

- Attach the bottom casting unit by hooking over the lower tabs at the firebox sides. See figure 51.
- Attach the top casting unit by hooking over the four tabs at the firebox sides as shown in figure 52.

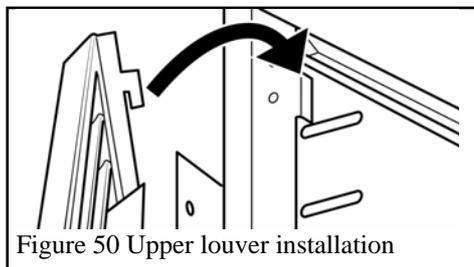


Figure 50 Upper louver installation

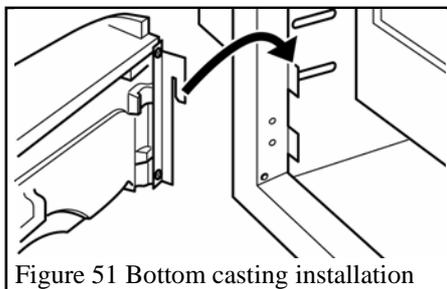


Figure 51 Bottom casting installation

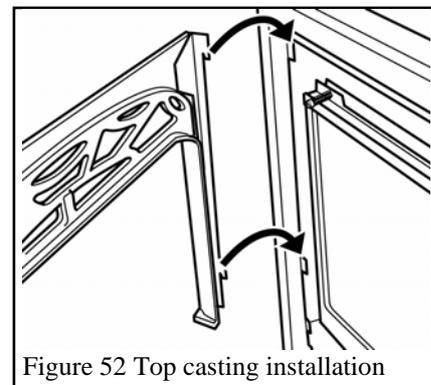


Figure 52 Top casting installation

## FOR YOUR SAFETY READ BEFORE LIGHTING

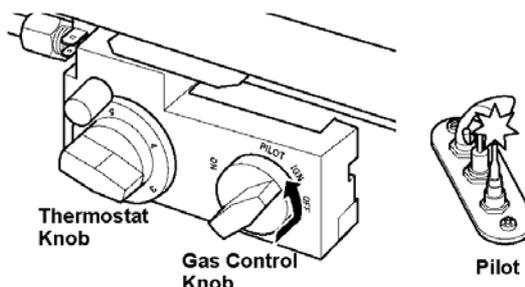
**WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- WHAT TO DO IF YOU SMELL GAS**
- Do not try to light any appliance.
  - Do not touch any electric switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the control knobs. Never use tools. If the controls will not push in or turn by hand, don't try to repair them, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

## LIGHTING INSTRUCTIONS

1. **STOP!** Read the safety information above.
2. Set the thermostat as far clockwise as possible\*.
3. Turn the gas control knob clockwise to OFF.

**NOTE:** The knob cannot be turned from PILOT to OFF unless it is pushed in partially. Do not force.



4. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, **STOP!** Follow "B" in the safety information above. If you don't smell gas, go to the next step.
5. Find the pilot. It is at the left side of the firebox viewed through hole in front log.
6. Push in and turn the gas control knob counterclockwise until resistance is felt just before the "IGN" position.
7. Keep pushed in for a few seconds to allow gas to flow then, keeping knob depressed, turn to "PILOT" to light pilot. Hold knob in for a further 5 seconds then release. The knob should pop back out. Pilot should remain lit. If pilot goes out repeat steps 3 through 7.
  - If knob does not pop out when released, stop and immediately call your service technician or gas supplier.
  - If pilot lights but will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
8. When pilot is lit, partially depress the knob and turn to "ON" position (Burner alight).
  - Do not leave knob set between "PILOT" and "ON".
9. Set thermostat to desired setting\*.

## TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat as far clockwise as possible\*
2. Push in gas control knob slightly and turn clockwise to "OFF". Do not force.

\* The thermostat can be set by depressing rocker switch or remote control hand set..